

## 65 - INDEPENDENT AGENCIES - REGULATORY

### 407 - PUBLIC UTILITIES COMMISSION

#### CHAPTER 321 - LOAD OBLIGATION AND SETTLEMENT CALCULATIONS FOR COMPETITIVE PROVIDERS OF ELECTRICITY

**SUMMARY** - This Chapter establishes requirements governing the calculation of hourly and monthly loads by transmission and distribution utilities for competitive electricity providers operating in Maine, for purposes of determining their retail load obligations within bulk power systems operating in the region.

<b>§ 1</b>	<b>DEFINITIONS</b> .....	3
<b>§ 2</b>	<b>TRANSMISSION AND DISTRIBUTION UTILITY OBLIGATION</b> .....	4
	A. <u>Obligation for Compliance</u> .....	4
	B. <u>Aggregators and Brokers</u> .....	4
	C. <u>Standard Offer Provider</u> .....	4
	D. <u>Consumer-Owned Utility Obligations</u> .....	5
<b>§ 3</b>	<b>TELEMETERING</b> .....	6
	A. <u>Customers with Maximum Load in Excess of Large Commercial and Industrial Profile Group</u> .....	6
	B. <u>All Other Customers</u> .....	6
	C. <u>Phase-In of Telemetry</u> .....	6
<b>§ 4</b>	<b>LOAD PROFILES</b> .....	6
	A. <u>Load Profiles for Customer Groups</u> .....	6
	B. <u>Profiling Methodology</u> .....	7
<b>§ 5</b>	<b>DAILY ESTIMATION OF COMPETITIVE ELECTRICITY PROVIDER HOURLY LOADS</b> .....	8
	A. <u>Calculation of Customers' Hourly Loads</u> .....	8

B.	<u>Calculation of Competitive Electricity Providers' Hourly Load Responsibilities</u> .....	9
<b>§ 6</b>	<b>MONTHLY SETTLEMENT OF COMPETITIVE ELECTRICITY PROVIDER ENERGY USE</b> .....	10
A.	<u>Recalculation of Competitive Electricity Provider Hourly Loads</u> .....	10
B.	<u>Calculation of Hourly Load or Monthly Energy Differences</u> .....	10
<b>§ 7</b>	<b>INFORMATION ACCESS</b> .....	11
A.	<u>Access to Each Day's Hourly Load Estimates</u> .....	11
B.	<u>Access to Month-End Energy Differences</u> .....	11
C.	<u>Access to Load Profiles</u> .....	12
<b>§ 8</b>	<b>DATA TRANSFER</b> .....	12
<b>§ 9</b>	<b>REPORTING</b> .....	12
A.	<u>Methodology Report</u> .....	12
B.	<u>Annual Report</u> .....	13
C.	<u>Line Loss Study</u> .....	13
<b>§ 10</b>	<b>WAIVER OR EXEMPTION</b> .....	13

## § 1 DEFINITIONS

A. Aggregator. "Aggregator" means an entity that gathers individual customers together for the purpose of purchasing electricity ~~on a group basis~~, provided such entity is not engaged in the purchase or resale of electricity directly with a competitive electricity provider, and provided further that such customers contract for electricity directly with a competitive electricity provider.

B. Broker. "Broker" means an entity that acts as an agent or intermediary in the sale and purchase of electricity but that does not take title to electricity, provided such entity is not engaged in the purchase or resale of electricity directly with a competitive electricity provider, and provided further that customers contract for electricity directly with a competitive electricity provider.

C. Bulk Power System Administrator. "Bulk power system administrator" means ISO-NE or Northern Maine ISA. An equivalent functional organization that carries out financial settlement with competitive electricity suppliers operating in the portion of Maine that is not in ISO-NE's territory.

D. Competitive Electricity Provider. "Competitive electricity provider" means a marketer, broker, aggregator or any other entity selling electricity to the public at retail in Maine.

E. Consumer-owned Utility. "Consumer-owned utility" means any transmission and distribution utility wholly owned by its consumers, as described in 35-M.R.S.A. § 3201(6).

F. Deemed Load Profile. "Deemed load profile" means a load profile defined by engineering estimates.

G. Dynamic Load Profile. "Dynamic load profile" means a load profile whose hourly load levels are assigned no less frequently than daily based on actual conditions.

H. Investor-Owned Utility. "Investor-Owned Utility" means a large investor-owned transmission and distribution utility or a small investor-owned transmission and distribution utility, as described in 35-M.R.S.A. § 3201(12) and 35-M.R.S.A. § 3201(16).

I. ISO-NE. "ISO-NE" means the Independent System Operator of the New England bulk power system.

J. ISO-NE Control Area. "ISO-NE control area" means the area in which the ISO-NE operates the New England bulk power system.

**KJ.** Load Profile. "Load profile" means an estimate of the hourly load levels of a group of customers during a specified time period such as a day or a month, at the point of delivery, measured with either static metering or telemetering.

**L.** Maritimes Control Area. "Maritimes control area" means the area in which the New Brunswick Power Corporation operates the Maritimes bulk power system

**M.** Northern Maine ISA. "Northern Maine ISA" means the Independent System Administrator of the northern Maine retail markets.

**NK.** Static Metering. "Static metering" means the reading or gathering of metered load data less frequently than daily, such as at the end of each month, to obtain hourly loads.

**OL.** Static Load Profile. "Static load profile" means a load profile whose hourly load levels are assigned in advance.

**PM.** Standard Offer Provider. "Standard offer provider" means a provider of standard offer service chosen pursuant to Chapter 301 of the Commission's rules.

**QN.** Summer. "Summer" means the months not defined as winter for a transmission and distribution utility's seasonally differentiated core rate classes. If a transmission and distribution utility has no seasonally differentiated core rate classes, "summer" means the months between and including April and October.

**RO.** Telemetering. "Telemetering" means the remote reading or gathering of metered load data no less frequently than daily, to obtain hourly loads.

**SP.** Transmission and Distribution Utility. "Transmission and distribution utility" means a person, its lessees, trustees, receivers or trustees appointed by a court, owning, controlling, operating or managing a transmission and distribution plant for compensation within the state.

**TQ.** Winter. "Winter" means the months defined as winter for a transmission and distribution utility's seasonally differentiated core rate classes. If a transmission and distribution utility has no seasonally differentiated core rate classes, "winter" means the months between and including November and March.

## **§ 2 TRANSMISSION AND DISTRIBUTION UTILITY OBLIGATION**

A. Obligation for Compliance. Each transmission and distribution utility shall ensure that the provisions of this Chapter are carried out in its service territory.

B. Aggregators and Brokers. The provisions of this Chapter that refer to competitive electricity providers ~~apply to marketers and to generators of electricity that sell at retail. These provisions~~ do not apply to aggregators and brokers.

C. Standard Offer Provider. The provisions of this Chapter that refer to competitive electricity providers apply to standard offer providers.

D. Consumer-Owned Utility Obligations. A consumer-owned utility may carry out the provisions of this Chapter by any of the following methods. The consumer-owned utility shall compensate the investor-owned utility its reasonable costs of carrying out the provisions in this Section.

1. All retail electricity sales to customers of a consumer-owned utility may be treated as if they were made within an adjacent investor-owned transmission and distribution utility for purposes of complying with all provisions of this Chapter.

2. A consumer-owned utility may adopt the load profiles of an adjacent investor-owned transmission and distribution utility to represent customers in the consumer-owned utility's service territory for purposes of complying with Section 4 of this Chapter.

3. A consumer-owned utility may adopt a single load profile per day for all customers receiving standard offer service using the following procedure:

a. The consumer-owned utility shall require all customers who receive generation service from a competitive electricity provider other than the standard offer provider to be telemetered. The transmission and distribution utility shall, at its option, waive the charge to the competitive electricity provider determined pursuant to Section 3.B of this Chapter.

b. The consumer-owned utility shall calculate a single load profile per day for all non-telemetered customers that is equal in each hour to the hourly bulk power meter reading attributable to retail sales, less the sum of the hourly telemetered loads adjusted for line losses attributable to the telemetered customers between the customer delivery point and the point of bulk system metering for purposes of complying with Section 4 of this Chapter.

4. A consumer-owned utility may petition the Commission to use any other method for load profiling or for hourly and monthly load calculations that reasonably complies with the goals of this Chapter.

|

### § 3 TELEMETERING

A. Large Non-Residential Customers~~Customers with Maximum Load in Excess of Large Commercial and Industrial Profile Group~~. For the purposes of this Chapter, transmission and distribution utilities shall use telemetering to measure hourly loads of all non-residential customers ~~that are not within the small non-residential or medium non-residential whose maximum monthly demand in the previous 12 months exceeded the level that would place the customer in the Large Commercial and Industrial~~ profiling classes as ~~they are~~it is defined in subsection 4.A.2.e. For transmission and distribution utilities that have a core customer class with a breakpoint of 500 kW, all customers with maximum demands of 500 kW or greater shall be considered Large Non-Residential Customers. For transmission and distribution utilities that have a core customer class with a breakpoint of 400 kW, all customers with maximum demands of 400 kW or greater shall be considered Large Non-Residential Customers. The transmission and distribution utilities shall recover the reasonable costs of equipment and data processing required by this provision. These costs will be recovered from the classes containing customers affected by this provision.

B. All Other Customers. Competitive electricity providers may request that a transmission and distribution utility use telemetering to measure the hourly loads of any customer that receives generation service from that competitive electricity provider and that is not telemetered pursuant to subsection 3.A. The transmission and distribution utility shall charge the requesting competitive electricity provider the resulting incremental cost of equipment and data processing. The transmission and distribution utility shall accommodate requests for telemetering as quickly as practicable.

C. Phase-In of Telemetering. Upon a finding that transmission and distribution utilities cannot accommodate requests for telemetering in a reasonably timely manner, the Commission shall implement a phase-in approach that shall limit telemetering requests to customers using a prioritizing process to be determined by the Commission.

### § 4 LOAD PROFILES

A. Load Profiles for Customer Groups.

1. Each transmission and distribution utility shall develop a set of load profiles for each of the three customer profile groups defined in Section 4.A.2. Each customer profile group's load profile set will contain 24-hour profiles that may be used to represent each day of a year. Each daily profile will represent an average per-customer load, at the point of retail delivery. Each profile will represent a 24-hour day that may be identified through some indicator such as month, day of the week, weather condition, or any other indicator that significantly affects load. Profiles may be created by combining the metered loads from more than one day. Each customer profile group will be used to represent those customers not telemetered ~~pursuant to Section 3~~.

2. The three customer profile groups shall be:

a. Residential. This profile group shall contain all customers defined as residential by the terms and conditions of the transmission and distribution utility.

b. Small Non-Residential~~Commercial and Industrial~~. This profile group shall contain all non-residential customers that meet the availability criteria to take service under a core customer class of the transmission and distribution utility that does not include a demand charge whose maximum monthly demand in the previous 12 months did not exceed the kW level defining the upper bound of the transmission and distribution utility's core rate class that does not include a demand charge. The maximum monthly demand used for the purpose of this provision shall not exceed 50. The profile group shall exclude customers with deemed load profiles as described in Section 4.A.3 and shall exclude customers who are telemetered pursuant to Section 3.

c. Medium Non-Residential~~Large Commercial and Industrial~~. This profile group shall contain all non-residential customers that do not meet the criteria for a small non-residential customer and that meet the availability criteria to take service under a core customer class of the transmission and distribution utility that includes a demand charge and in which a customer's maximum demand shall not exceed 500 kW, or the kW breakpoint that is closest to but does not exceed 500 kW who do not fall within the Small Commercial and Industrial profile group and whose maximum monthly demand in the previous 12 months did not exceed the kW level defining the lower bound of the transmission and distribution utility's core rate classes for its largest customers. The maximum monthly demand used for the purpose of this provision shall not exceed 500. The profile group shall exclude customers with deemed load profiles as described in Section 4.A.3 and shall exclude customers who are telemetered pursuant to Section 3.

3. Deemed load profiles are permissible but not required for customers whose loads are easily estimated through engineering characteristics.

## B. Profiling Methodology

1. For each transmission and distribution utility, samples in each customer profile group will be designed to produce the following accuracy:

a. a 90% confidence level with plus or minus 10% error margin in hourly load at the time of the transmission and distribution utility's summer peak for utilities operating in the ISO-NE control area~~territory~~; or a 90% confidence level with plus or minus 10% error margin in hourly load at the time of the transmission and distribution utility's winter peak for utilities operating in the Maritimes control area~~outside ISO-NE territory~~.

b. to the extent that it is practicable, the highest possible level of accuracy in the peak hours of all months in the year should be given consideration, while maintaining the provisions in Section B.1.a; and

c. to the extent that it is practicable, the highest possible level of accuracy in all hours of the year should be given consideration, while maintaining the provisions in Section B.1.a.

2. Transmission and distribution utilities shall re-sample each customer profile group no less frequently than every two years. This provision will be waived if the transmission and distribution utility demonstrates to the Commission that the current sample represents the customer profile group with reasonable accuracy.

3. Transmission and distribution utilities shall use either simple random sampling or stratified random sampling to select samples of each customer profile group.

4. Transmission and distribution utilities shall use either ratio analysis or mean-per-unit analysis to create load profiles from the samples of each customer profile group.

## **§ 5 DAILY ESTIMATION OF COMPETITIVE ELECTRICITY PROVIDER HOURLY LOADS**

A. Calculation of Customers' Hourly Loads. After each day, the transmission and distribution utility shall estimate hourly loads in that day for each customer at the point of delivery.

1. For customers that are telemetered, the estimate shall equal the customer's telemetered usage.

2. For customers that are not telemetered, including those with deemed load profiles, the estimates shall be equal to a load profile, from the appropriate customer profile group's set of profiles, that represents the day being estimated, based on the indicator(s) used to create the load profiles pursuant to Section 4.A.1; adjusted for weather or other conditions that significantly affect load, using regression analysis or other technique, if not otherwise reflected in the load profile; and adjusted for the customer's estimated daily energy use.

### **B. Calculation of Competitive Electricity Providers' Hourly Load Responsibilities**

1. After each day, transmission and distribution utilities shall estimate hourly load responsibilities in that day for each competitive electricity provider. The estimate shall equal:

a. the sum of the telemetered hourly loads of the competitive electricity providers' telemetered customers, calculated pursuant to Section 5.A, and adjusted for line losses attributable to those customers between the customer delivery point and the point of bulk system metering; plus



b. the sum of the estimated hourly loads of the competitive electricity providers' profiled customers, calculated pursuant to Section 5.A, and adjusted for line losses attributable to those customers between the customer delivery point and the point of bulk system metering; plus

c. the hourly difference between the portion of the bulk system hourly metered loads attributable to retail sales and the total system estimated hourly loads calculated pursuant to Sections 5.B.1.a and 5.B.1.b, allocated to competitive electricity providers based on sales to profiled customers.

2. The calculations described in Section 5.B.1 shall be used to determine regional load obligation settlements.

a. Each transmission and distribution utility located in the ISO-NE control area shall report the hourly load responsibilities of each competitive electricity provider operating in its territory to ISO-NE in conformance with ISO-NE requirements as they may be changed from time to time.

b. Each transmission and distribution utility located in the Maritimes outside the ISO-NE control area shall use the hourly load responsibilities of each competitive electricity provider operating within its territory to the Northern Maine ISA in conformance with Northern Maine ISA requirements as they may be changed from time to time in a manner pursuant to procedures determined by the Commission.

c. All hourly load responsibilities reported to the ISO-NE and Northern Maine ISA pursuant to this paragraph shall be differentiated by Load Asset I.D. Number or other unique identifying number used by the ISO-NE or Northern Maine ISA. All competitive electricity providers operating within the ISO-NE control area must be assigned at least one valid ISO-NE Load Asset I.D. Number or other identifying number. All competitive electricity providers operating within the Maritimes control area must be assigned at least one valid Northern Maine ISA Load Asset I.D. Number or other identifying number.

3. Line losses that occur when delivering a competitive electricity provider's energy within a transmission and distribution utility's local network are the sole responsibility of the competitive electricity provider, and will be allocated in a manner consistent with this principle. Line losses will reflect, at a minimum, variation between summer and winter and variation among voltage levels.

## **§ 6 MONTHLY SETTLEMENT OF COMPETITIVE ELECTRICITY PROVIDER ENERGY USE**

A. Recalculation of Competitive Electricity Provider Hourly Loads. After each calendar month, transmission and distribution utilities shall re-estimate the hourly load

responsibilities for each competitive electricity provider, to reflect monthly energy use most recently metered for billing purposes. The re-estimate shall be done in a manner that duplicates the hourly load responsibilities calculated pursuant to Section 5 in all respects except that customers' estimated daily energy use used in each day's calculations shall reflect the most recent meter reading done for billing purposes.

**B. Calculation of Hourly Load or Monthly Energy Differences.**

1. After each calendar month, the transmission and distribution utility shall be capable of calculating two energy difference estimates for each competitive electricity provider:

a. the hourly load differences between hourly loads estimated pursuant to Section 6.A and hourly loads estimated pursuant to Section 5; and

b. the monthly energy differences, equal to the sum of the hourly load differences within the month calculated pursuant to Section 6.B.1.a.

2. The calculations described in Section 6.B.1 shall be used to adjust the financial settlement associated with each competitive electricity provider's regional load obligation and generation delivery. The bulk power system administrator will determine whether hourly load differences or monthly energy differences will be used for this purpose.

a. Each transmission and distribution utility located in the ISO-NE control area shall report the hourly load differences or monthly energy difference of each competitive electricity provider operating in its territory to ISO-NE in conformance with ISO-NE requirements as they may be changed from time to time.

b. Each transmission and distribution utility located ~~in the Maritimes outside the ISO-NE~~ control area shall ~~report~~use the hourly load differences or monthly energy difference of each competitive electricity provider operating in its territory ~~to the Northern Maine ISA in conformance with Northern Maine ISA requirements as they may be changed from time to time in a manner pursuant to procedures determined by the Commission.~~

c. All load responsibilities reported to the ISO-NE and Northern Maine ISA pursuant to this paragraph shall be differentiated by Load Asset I.D. Number or other unique identifying number used by the ISO-NE or Northern Maine ISA. All competitive electricity providers operating within the ISO-NE control area must be assigned as least one valid ISO-NE Load Asset I.D. Number or other identifying number. All competitive electricity providers within the Maritimes control area must be assigned at least one valid Northern Maine ISA Load Asset I.D. Number or other identifying number.

**§ 7 INFORMATION ACCESS**

A. Access to Each Day's Hourly Load Estimates.

1. After each day, the transmission and distribution utility shall provide an estimate of each competitive electricity provider's hourly loads, within 36 hours of the end of the day or at such time as the bulk power system administrator requires, to the bulk power system administrator, as specified in Section 5.B.2.

2. The transmission and distribution utility shall provide to each competitive electricity provider its estimated hourly loads as reported to the bulk power system administrator as soon as practicable, but no later than two business days after providing that data to the bulk power system administrator.

3. Upon request by a competitive electricity provider, the transmission and distribution utility shall provide to the competitive electricity provider its customer's estimated hourly loads for any days within the previous 12 months, for any customer receiving service from that competitive electricity provider. Before issuing a request to receive estimated hourly loads, a competitive electricity provider must obtain authorization pursuant to Chapter 322, Section 9.A. of the Commission's Rules~~35-A~~ M.R.S.A. § 3205.3.1.

B. Access to Month-End Energy Differences

1. After each month, the transmission and distribution utility shall provide an estimate of each competitive electricity provider's monthly or hourly energy difference(s) to the bulk power system administrator, within 45 days of the end of the month or at such time as the bulk power system administrator requires, as specified in Section 6.B.2.

2. The transmission and distribution utility shall provide to each competitive electricity provider its estimated monthly or hourly difference(s) as reported to the bulk power system administrator as soon as practicable, but no later than two business days after providing those data to the bulk power system administrator.

3. Upon request by a competitive electricity provider, the transmission and distribution utility shall provide to the competitive electricity provider its customer's estimated monthly or hourly differences within the previous 12 months, for any customer receiving service from that competitive electricity provider. Before issuing a request to receive estimated differences, a competitive electricity provider must obtain authorization

pursuant to Chapter 322, Section 9.A. of the Commission's Rules~~35-A~~ M.R.S.A. § 3205.3.1.

C. Access to Load Profiles

The transmission and distribution utility shall make public the load profiles of each customer profile group. This provision does not apply when publication may reasonably reveal an individual customer's load characteristics.

## § 8 DATA TRANSFER

Each transmission and distribution utility and each competitive electricity provider shall transfer data among one another in accordance with procedures and formats specified in the Electronic Business Transaction (EBT) Standards contained in Chapter 323 of the Commission's Rules-developed pursuant to a proceeding initiated by the Commission. Each transmission and distribution utility and each competitive electricity provider shall pay for the data transfer pursuant to Chapter 322, Section 9.B. of the Commission's Rules.

## § 9 REPORTING

### A. Methodology Report

1. Prior to December 1, 1998, each transmission and distribution utility shall file a report that will allow the Commission to verify compliance with this Chapter. The report will describe the methods by which sampling and data validation will be performed.

2. Prior to December 1, 1999, each transmission and distribution utility shall file a report that will allow the Commission to verify compliance with this Chapter. The report will describe the methods by which the utility will create profiles from samples, estimate daily supplier loads, and estimate month-end energy difference.

B. Annual Report. Annually on ~~June~~March 1, each transmission and distribution utility shall file a report that describes its benefits and costs of complying with this Chapter and that recommends changes to methods or procedures.

C. Line Loss Study. Each transmission and distribution utility shall file a line loss study before March 1, 1999 and a revised study before March 1, 2001. The Commission shall approve line loss values to be used in calculations made pursuant to this Chapter no later than four months after each filing.

## § 10 WAIVER OR REVISIONS

Upon the request of any person subject to the provisions of this Chapter or upon its own motion, the Commission may waive any of the requirements of this Chapter that are not required by the statute. Where good cause exists, the Commission, the Director of Technical Analysis, or Presiding Officer in a proceeding related to this Chapter may grant the requested waiver, provided that the granting of the waiver would not be inconsistent with the purposes of this Chapter or Title 35-A.

**BASIS STATEMENT:** The factual and policy basis for this Chapter is set forth in the Commission's Order Adopting Rule and Statement of Policy Basis, No. 98-496, issued on October 13, 1998, and in the Commission's Order Adopting Rule and Statement of Policy Basis, Docket No. 99-721, issued October 19, 1999. Copies of this Statement and Order have been filed with this Chapter at the Office of the Secretary of State. Copies may also be obtained from the Administrative Director, Public Utilities Commission, 242 State Street, 18 State House Station, Augusta, Maine 04333-0018.

**AUTHORITY:** 35-A M.R.S.A. §§ 111, 1301, 3202(1) and (2), and 3203 (9).

**EFFECTIVE DATE:** This Chapter was approved as to form and legality by the Attorney General on \_\_\_\_\_. It was filed with the Secretary of State on October 30, 1998 and will be effective on \_\_\_\_\_.